

# Amalgamated Lifts

## Royal Entomological Society



**Amalgamated Lifts takes lift design and build to a new level, with the delivery of a totally custom built lift for the Royal Entomological Society Headquarters.**

Having relocated to new premises to Mansion House in St Albans, the society was keen to add a lift for disabled visitors, so they could have access to three floors.

From a technical and compliance perspective both the engineering design and deployment into a stairwell with the space constraints was challenging. Amalgamated Lifts' design engineering team utilised a direct acting hydraulic ram arrangement with a bore hole to free up as much space as possible for the lift car. The unique design meant the lift car and sling had to be custom built.

Computer modelling techniques were used and the 8 person lift was specifically designed to capture the essence of the society; its internal walls are decorated with stunning photography of a variety of insect life including ladybirds, mayflies and butterflies. Very early on the project affectionately became known as 'the bug job'.

The biggest challenge initially was finding a location for the lift. Having studied the building structurally, extensive surveys were necessary to establish where the lift would fit and comply with legal requirements. To maximise the space available a direct-acting borehole hydraulic system was implemented underneath the lift. While you would normally drill down to accommodate the hydraulics the second challenge arose as it soon became evident that the building was in fact sitting on almost solid granite. Impossible to drill, the only option was to dig out the 2m wide by 3m deep pit by hand.



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The lift shaft was extended, along with the building of a new motor room in the basement and providing support to the ground floor. A hole was cut in exterior walls to put in the lift guides in through the shaft wall.

New entrances were created on each level of access, over three floors, and cosmetic modifications of the building were made so that aesthetically it looked as if the lift had always been there.

Finally the lift was thoroughly tested in accordance with EN81, Lifts Directive 1995 requiring two days of testing to check all safety components and devices all hydraulic system, valve, locks, buffers, safety gear, and appropriate clearances to check not only that they work but the correct parts have been installed. The lift was completed on time and on budget. Amalgamated Lifts continues to maintain the lift which hasn't had a single failure since commissioning – **we all like a happy ending.**

